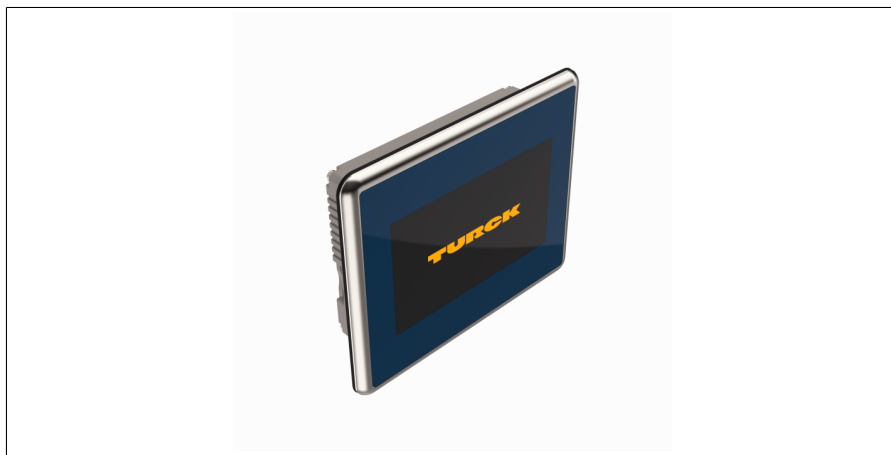


# TX700 HMI/PLC Series

## 7" Display for F&B — CODESYS V3 PLC with TARGET and WEB VISU

High-Quality Metal Housing and Glass Front with a Capacitive Touch

TX707FB-P3CV01



- 7" TFT wide screen color display
- LED backlight
- 800 x 480 pixel resolution
- 16 M colors
- Capacitive touchscreen with glass front and polyester coating
- Stainless steel frame and food-grade seal
- IP69 degree of protection, high-pressure watertight up to 80 °C
- Acid- and chemical-resistant
- 3 RJ45 Ethernet ports with 10/100 Mbit
- 1 serial interface (RS232, RS485, RS422)
- 2 USB host ports
- 1 SD card slot

|      |                |
|------|----------------|
| Type | TX707FB-P3CV01 |
| ID   | 100007471      |

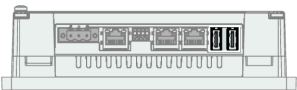
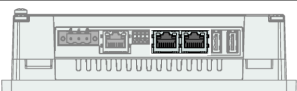
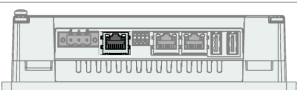
|                     |                         |
|---------------------|-------------------------|
| Display/touch       |                         |
| Display             | TFT colour              |
| Touchscreen         | Capacitive, Glass front |
| Active screen area  | 7"                      |
| Resolution (pixels) | 800 × 480 WVGA          |
| Format              | 16:9                    |
| Brightness          | 500 cd/m² typ.          |
| dimmmable           | Yes, To 0 %             |

|                 |                                   |
|-----------------|-----------------------------------|
| Controller      |                                   |
| Processor       | ARM Cortex A9, Dual-core 800 MHz  |
| Memory          | 4 GB Flash                        |
| RAM memory      | 1024 MB                           |
| Add-on memory   | 1x SD card slot, 2 USB host ports |
| Real time clock | Yes (battery-buffered)            |

|                              |                                    |
|------------------------------|------------------------------------|
| PLC data                     |                                    |
| Programming                  | CODESYS V3                         |
| Released for CODESYS version | V 3.5.12.10                        |
| Programming languages        | IEC 61131-3 (IL, LD, FBD, SFC, ST) |
| Programming interface        | Ethernet                           |
| Program memory               | 20000 kByte                        |
| Non-volatile memory          | 63 kByte                           |

|                              |                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Interfaces</b>            |                                                                                                                |
| Onboard                      | 3 × RJ45 Ethernet, 1 × RS232/485/422, 2 × USB host, 1 × power supply, 2 × expansion slot                       |
| Onboard for selection        | CANopen Master (via extension module)                                                                          |
| Ethernet                     | ETH0 — 10/100 Mbit<br>ETH1 - 10/100 Mbit<br>ETH2 - 10/100 Mbit                                                 |
| Protocols                    | PROFINET (Controller/Master)<br>EtherNet/IP (Scanner/Master)<br>Modbus TCP (Master/Slave)<br>EtherCAT (Master) |
| Fieldbus                     | Modbus RTU (Master/Slave)<br>CANopen (Master)                                                                  |
| USB                          | 2 × host ports                                                                                                 |
| Serial                       | RS232 / RS485 / RS422                                                                                          |
| Expansion slot               | Two slots for up to four plug-in modules                                                                       |
| <b>Power supply</b>          |                                                                                                                |
| Rated value                  | 24 VDC, max. 0.7 A                                                                                             |
| Admissible voltage range     | 10...32 VDC                                                                                                    |
| <b>General data</b>          |                                                                                                                |
| Operating ambient conditions | -20...60 °C, 5...85 % relative humidity, non-condensing                                                        |
| Storage ambient conditions   | -30...70 °C, 5...85 % relative humidity, non-condensing                                                        |
| Approvals                    | CE                                                                                                             |
| Protection class             | IP69 front, IP20 rear                                                                                          |
|                              | NEMA type: 12/4X                                                                                               |
| Material                     | Die-cast aluminum housing with stainless steel frame (AISI 316L) and polyester front foil                      |
| <b>Dimensions</b>            |                                                                                                                |
| Front (W x H x D)            | 217 x 177 x 45 mm                                                                                              |
| Cut-out (W x H)              | 176 x 136 mm                                                                                                   |
| Mounting depth               | 45 + 10 mm                                                                                                     |
| Weight                       | approx. 2.5 kg                                                                                                 |

## Connection and pin assignment

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p><b>Power Supply</b></p> <p>The power supply connector is supplied with each device.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>Pin assignment</p>  <p>1 = 24 VDC<br/>2 = 0 V<br/>3 = <math>\frac{1}{2}</math></p>                                               |
|    | <p><b>USB Interface</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p>Pin assignment</p>  <p>1 = 5 VDC<br/>2 = D<sup>-</sup><br/>3 = D<sup>+</sup><br/>4 = GND</p>                                     |
|  | <p><b>Ethernet</b></p> <p>Ethernet ports ETH1 and ETH2 (10/100 Mbit)</p> <p>The Ethernet ports are independent but can be bridged with ETH0.</p> <p>Ethernet cables (examples):</p> <p><b>RJ45 male connector — RJ45 male connector:</b> RJ45S-RJ45S-4414-2M (ID: 6441423)</p> <p><b>RJ45 male connector — M12 male connector, 4-pin, D-coded:</b> RSSD-RJ45S-4414-2M (ID: 6441413)</p> <p><b>RJ45 male connector — M8 male connector, 4-pin:</b> PSGS4M-RJ45S-4414-2M (ID: 6933005)</p> <p><b>RJ45 male connector — M12 female receptacle, 4-pin, D-coded:</b> RJ45-FKSDD-4414-2M (ID: 6935282)</p> | <p>Pin assignment</p>  <p>1 = TX +<br/>2 = TX -<br/>3 = RX +<br/>4 = n.c.<br/>5 = n.c.<br/>6 = RX -<br/>7 = n.c.<br/>8 = n.c.</p> |
|  | <p><b>Ethernet</b></p> <p>Ethernet port ETH0 (10/100 Mbit)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>Pin assignment</p>  <p>1 = TX +<br/>2 = TX -<br/>3 = RX +<br/>4 = n.c.<br/>5 = n.c.<br/>6 = RX -<br/>7 = n.c.<br/>8 = n.c.</p> |



Serial Interface

The serial interface can be operated either as RS232, RS485 or RS422. The adjacent wiring diagrams show the respective pin assignments.

**PLEASE NOTE:** In RS485 mode, pins 1 and 2 as well as 3 and 4 must be externally connected!

Pin assignment in RS232 operating mode

- 1 = RX
- 2 = TX
- 3 = CTS
- 4 = RTS
- 5 = +5 VDC output
- 6 = GND
- 7 = n.c.
- 8 = shield

Pin assignment in RS485 operating mode

- 1 = B- (RX-)
- 2 = A- (TX-)
- 3 = B+ (RX+)
- 4 = A+ (TX+)
- 5 = +5 VDC output
- 6 = GND
- 7 = n.c.
- 8 = shield

Pin assignment in RS422 operating mode

- 1 = RX-
- 2 = TX-
- 3 = RX+
- 4 = TX+
- 5 = +5 VDC output
- 6 = GND
- 7 = n.c.
- 8 = shield



Ports for Plug-in Modules



SD Card Slot

SD card (example): 2-GB SD CARD (ID: 6828025)

## Accessories

| Type code      | Ident no. |                                                               | Dimension drawing                                                                   |
|----------------|-----------|---------------------------------------------------------------|-------------------------------------------------------------------------------------|
| TX700-MOUNT-07 | 100003188 | TX700 mounting bracket and power connectors for 5–7" devices  |  |
| TX-LTE-WLAN    | 100025179 | Plug-in LTE and Wi-Fi modem with LTE/UMTS/GSM, Wi-Fi and GNSS |  |

## Function accessories

| Type code  | Ident no. |                                                                  | Dimension drawing                                                                     |
|------------|-----------|------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| TX-IO-XX03 | 6828201   | Plug-in I/O module — 20 DI, 12 DO, 4 AI (U/I/RTD/TC), 4 AO (U/I) |  |
| TX-IO-DX06 | 6828203   | Plug-in I/O module — 8 DI, 6 DO, 1 relay output (NO)             |  |
| TX-UMTS    | 100009535 | Plug-in radio modem with 2G/3G support                           |  |

## Function accessories

| Type code | Ident no. |                                                                   | Dimension drawing                                                                     |
|-----------|-----------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| TX-DP-S   | 100010167 | Plug-in PROFIBUS DP slave interface, 9-pin SUB-D female connector |    |
| TX-CAN    | 6828210   | Plug-in CANopen interface, 9-pin SUB-D male connector             |    |
| TX-RS485  | 100002598 | Plug-in interface for RS485/RS422, 9-pin SUB-D female connector   |   |
| TX-RS232  | 100002599 | Plug-in interface for RS232, 9-pin SUB-D female connector         |  |
| TX-PSC    | 100002938 | Power Supply Male Connector for TX HMI Devices                    |  |